

INTERNATIONAL STANDARD

IEC 60335-2-9

2002

AMENDMENT 1
2004-01

Amendment 1

**Household and similar electrical appliances –
Safety –**

**Part 2-9:
Particular requirements for grills, toasters and
similar portable cooking appliances**

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International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

F

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FOREWORD

This amendment has been prepared by IEC technical committee 61: Safety of household and similar electrical appliances.

The text of this amendment is based on the following documents:

FDIS	Report on voting
61/2535/FDIS	61/2579/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2005. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

INTRODUCTION

Replace the second sentence of the second paragraph by the following:

It also covers abnormal situations that can be expected in practice and takes into account the way in which electromagnetic phenomena can affect the safe operation of appliances.

1 Scope

Add the following item to Note 101:

- breadmakers;

2 Normative references

Replace the existing text by the following:

This clause of part 1 is applicable except as follows.

Addition:

IEC 60068-2-52, *Environmental testing – Part 2: Tests – Test Kb: Salt mist, cyclic (sodium chloride solution)*

3 Definitions

3.1.9 *Replace the definition of **normal operation** by the following:*

Operation of the appliance as specified in the following subclauses.

3.1.9.104 Replace “240 °C ± °C” by “240 °C ± 4 °C”.

Add the following:

3.1.9.111 Breadmakers are operated using the most unfavourable cycle and ingredients specified in the instructions.

NOTE The most unfavourable cycle may be for a function such as jam-making that allows the heating element and the kneading motor to operate simultaneously.

3.119

breadmaker

appliance intended for making bread comprising a heated compartment incorporating dough kneading facilities

6 Classification

Replace the existing text by the following:

This clause of Part 1 is applicable except as follows.

6.2 Addition:

Appliances intended for outdoor use shall be at least IPX4.

7 Marking and instructions

7.12 *Add the following after the second paragraph:*

The instructions for appliances intended for outdoor use shall include the substance of the following:

- the appliance is suitable for outdoor use;
- the supply cord should be regularly examined for signs of damage, and if the cord is damaged, the appliance must not be used;
- the appliance must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA;
- the appliance is to be connected to a socket-outlet having an earthing contact (for **class I appliances**).

Add the following after the last paragraph:

The instructions for **breadmakers** shall state the maximum quantities of flour and raising agent that may be used.

11 Heating

11.2 Replace “**hotplates and cookers**” by “**breadmakers, cookers and hotplates**”.

11.7 *Add the following:*

Breadmakers are operated for one cycle.

19 Abnormal operation

19.1 *Replace the text of the first dash by the following:*

- **breadmakers;**
- **contact grills;**
- **food dehydrators;**

21 Mechanical strength

Number the addition as 21.1.

Add the following:

For appliances intended for outdoor use, the impact energy is increased to 0,7 J.

22 Construction

Add the following subclauses:

22.111 Heating elements in **breadmakers** shall be located so that they are not exposed to dough that may rise over the edge of the dough container during normal use of the appliance.

Compliance is checked by inspection.

22.112 Reconnection of the power supply to a **breadmaker** after an interruption shall not result in a fire due to an extended heating period.

Compliance is checked by the following test.

*All batteries are removed and the **breadmaker** is supplied at **rated voltage** and operated in its heating mode without a load.*

After 1 min, the power supply is interrupted for a period of 5 min and then restored. The appliance shall continue to operate in its heating mode from the same point in the cycle, or a manual operation shall be required to restart it.

If the appliance continues to operate automatically, the test is repeated but with a 5 min longer period of interruption. If the appliance still continues to operate automatically, the test is repeated but with the periods of interruption increased by at least 5 min each time.

The appliance shall eventually require a manual operation to restart it.

25 Supply connection and external flexible cords

Add the following:

25.7 *Addition:*

The **supply cord** of appliances intended for outdoor use shall be polychloroprene sheathed.

30 Resistance to heat and fire

30.2 *Replace the existing text by the following:*

Addition:

The tests of 30.2.3 are applicable to

- breadmakers;*
- food dehydrators*
- the following appliances if they incorporate a timer or if their instructions indicate a cooking operation longer than 1 h:*
 - cookers;*
 - ovens;*
 - roasters;*
 - rotary grills.*

For other appliances, the tests of 30.2.2 are applicable.

31 Resistance to rusting

Replace the existing text by the following:

This clause of Part 1 is applicable except as follows.

Addition:

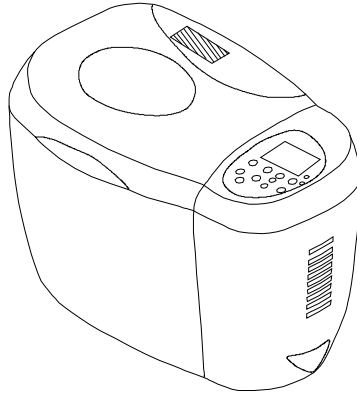
For appliances intended for outdoor use, compliance is checked by the salt mist test, Kb of IEC 60068-2-52, severity 2 being applicable.

Before the test, enclosures having a coating are scratched by means of a hardened steel pin, the end of which has the form of a cone with a top angle of 40°. Its tip is rounded with a radius of 0,25 mm ± 0,02 mm. The pin is loaded so that the force exerted along its axis is 10 N ± 0,5 N. The pin is held at an angle of 80°– 85° to the horizontal and scratches are made by drawing the pin along the surface of the coating at a speed of approximately 20 mm/s. Five scratches are made at least 5 mm apart and at least 5 mm from the edges.

After the test, the appliance shall not have deteriorated to such an extent that compliance with this standard, in particular with Clauses 8 and 27, is impaired. The coating shall not be broken and shall not have loosened from the surface.

Figure 101

Add the following appliance.



○

Add the following to the Key:

○ **Breadmaker**

Figure 104

In the Key, replace the diameter of the flat area of the base, “D”, by “d”.

ISBN 2-8318-7379-7



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ICS 97.040.50; 13.120

Typeset and printed by the IEC Central Office
GENEVA, SWITZERLAND